

activities as when full grown. The inexplicable acuteness of the Scolia wasp and its larva has been already mentioned. The life histories of the Yucca moth and the Sitaris beetle are not less astonishing. The former takes a lump of pollen from the anthers of one Yucca flower, lays its eggs in the ovary of another flower, and before flying off fertilizes this flower by depositing the lump of pollen upon its stigma. The larvae feed upon the ovules in the ovary, and would be short of nourishment unless these were fertilized and grew to maturity. But they do not consume all the ovules; some are spared and form seed to carry on the life of the plant in the next generation. The transfer of pollen from one flower to another is then necessary for the life both of the larvae and the plant. But we are quite unable to understand how these two distinct necessities come to be linked through the impulses of the moth. The Sitaris beetle lays its eggs at the mouth of the burrow of the Anthophora mason bee; its young are active little creatures with prehensile claws, and leap on to the drones as they pass out of the burrow on their nuptial flight. They transfer themselves to the females during the process of mating, are carried by the females to the nest, and transfer themselves again on to the eggs, when laid, living upon them and upon the store of honey until the time comes for their metamorphosis into adult beetles. The larvae are

endowed
with special organs and special
impulses for their
threefold migration, the object of
which is to
enable them to live, in a most
complicated

fashion, upon the lives of others.

Directive instinct is absolutely
unreasoning, and

will accept no guidance from inference.

A mud-
wasp (*Pelopoeus*) will continue to
provision its
nest-cell for its young after the egg
which it has